IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A mobile synchronous compensator plant comprising:

at least one rotating electric machine having at least one winding wherein the winding ~~in at least one of the electric machines~~ comprises a current-carrying conductor surrounded by an insulation system including at least two semiconducting layers, each of said semiconducting layers essentially constituting an equipotential surface and including solid insulation disposed therebetweeen, ~~and~~ wherein

the plant is transportable by a lorry, a railway truck, or a helicopter, and

the current-carrying conductor includes a plurality of strands, and at least a portion of said strands being insulated strands.

Claim 2 (Previously Presented): The mobile plant as claimed in claim 1, wherein at least one of the layers has substantially the same coefficient of thermal expansion as the solid insulation.

Claim 3 (Currently Amended): The mobile plant as claimed in claim 1, wherein the winding comprises a cable for high voltage including ~~one or more~~ the current-carrying ~~conductors~~ conductor surrounded by the insulation system.

Claim 4 (Previously Presented): The mobile plant as claimed in claim 3, wherein the innermost semiconducting layer is at substantially the same potential as the conductor(s).

Claim 5 (Canceled).

Claim 6 (Previously Presented): The mobile plant as claimed in claim 1, wherein said outer semiconducting layer is connected to a selected potential.

Claim 7 (Previously Presented): The mobile plant as claimed in claim 6, wherein the selected potential is earth potential.

Claim 8 (Previously Presented) The mobile plant as claimed in claim 3, wherein at least two of said layers have substantially the same coefficient of thermal expansion.

Claim 9 (Currently Amended): The mobile plant as claimed in claim 3, wherein the plurality of strands of the current carrying conductor ~~comprises a plurality of conductive elements and a selected number of said conductive elements being uninsulated from each other~~ includes uninsulated strands that are in electrical contact with one another.

Claim 10 (Currently Amended): The mobile plant as claimed in claim 1, wherein the winding consists of a cable comprising ~~one or more~~ the current-carrying ~~conductors, each conductor~~ conductor that consisting of ~~a number~~ the plurality of strands, an inner semiconducting layer being arranged around ~~each~~ the conductor, an insulating layer of solid insulation being arranged around ~~each~~ the inner semiconducting layer and an outer semiconducting layer being arranged around ~~each~~ the insulating layer.

Claim 11 (Previously Presented): The mobile plant as claimed in claim 1, wherein said layers are arranged to adhere to one another even when the insulated conductor or cable is bent.

Claim 12 (Previously Presented): The mobile plant as claimed in claim 10, wherein the cable includes a metal screen and a sheath.

Claim 13 (Currently Amended): The mobile plant as claimed in claim 1, wherein ~~the~~ a magnetic circuit is arranged in a rotating electric machine, the stator of which is cooled at earth potential.

Claim 14 (Previously Presented): The mobile plant as claimed in claim 1, wherein the machine includes a stator having slots and magnetic circuit slot being formed as a number of cylindrical openings running axially and radially outside each other, having substantially circular cross section and separated by narrow waist parts between the cylindrical openings for receiving the windings thereon.

Claim 15 (Previously Presented): The mobile plant as claimed in claim 14, wherein the stator includes a plurality of Y-connected phases.

Claim 16 (Previously Presented): The mobile plant as claimed in claim 15, wherein the phases have a common Y-point being insulated from earth potential or connected to each potential via a high-ohmic impedance and protected from over-voltages by means of surge arresters.

Claim 17 (Previously Presented): The mobile plant as claimed in claim 15, wherein the phases have a common Y-point for connection to earth via a suppression filter of third harmonic type for reducing third harmonic currents in the electric machine at the same time as being dimensioned to limit voltages and currents in the event of faults in the plant.

Claim 18 (Previously Presented): The mobile plant as claimed in claim 17, wherein the suppression filter is protected from over-voltages by means of surge arresters, the latter being connected in parallel with the suppression filter.

Claim 19 (Previously Presented) The mobile plant as claimed in claim 3, wherein the cable forming the stator winding has a gradually decreasing insulation seen from the high-voltage side.

Claim 20 (Previously Presented): The mobile plant as claimed in claim 19, wherein the gradual decrease in the insulation thickness is step-wise or continuous.

Claim 21 (Previously Presented): The mobile plant as claimed in claim 14, wherein the circular cross section of the substantially cylindrical openings in the slots for the stator winding has decreasing radius.

Claim 22 (Canceled).

Claim 23 (Previously Presented): The mobile plant as claimed in claim 1, wherein the machine can be started from a local power supply.

Claim 24 (Previously Presented): The mobile plant as claimed in claim 23, wherein the machine has two or more poles.

Claim 25 (Previously Presented): The mobile plant as claimed in claim 24, wherein the rotor and the stator are so dimensioned that at nominal voltage, nominal power factor and over-excited operation, thermally based current limits of stator and rotor are exceeded approximately simultaneously.

Claim 26 (Previously Presented): The mobile plant as claimed in claim 24, wherein the rotor and the stator are so dimensioned that at nominal voltage, nominal power factor and over-excited operation, thermally based stator current limit is exceeded before the thermally based rotor current limit has been exceeded.

Claim 27 (Previously Presented): The mobile plant as claimed in claim 25, having 100% overload capacity at nominal voltage, nominal power factor and at overexcited operation.

Claim 28 (Previously Presented): The mobile plant as claimed in claim 25, wherein the rotor poles are pronounced.

Claim 29 (Previously Presented): The mobile plant as claimed in claim 28, wherein the quadrature-axis synchronous reactance is less than the direct-axis cynchronous reactance.

Claim 30 (Previously Presented): The mobile plant as claimed in claim 29, wherein the machine includes excitation systems enabling both positive and negative excitation.

Claim 31 (Previously Presented): The mobile plant as claimed in claim 30, wherein the cable has a conductor area between 30 and 3000 mm^2 and an outer cable diameter of between 20 and 250 mm.

Claim 32 (Previously Presented): The mobile plant as claimed in claim 31, wherein the stator and rotor have circuits including cooling means in which the coolant is in liquid and/or gaseous form.

Claim 33 (Previously Presented): The mobile plant as claimed in claim 32, wherein the machine is arranged for connection to several different voltage levels.

Claim 34 (Previously Presented): The mobile plant as claimed in claim 1, wherein the machine is directly connectable to the power network without any step-up transformer.

Claim 35 (Previously Presented): The mobile plant as claimed in claim 1, wherein the winding of the machine is arranged for self-regulating field control without auxiliary means for control of the field.

Claim 36 (Previously Presented): The mobile plant as claimed in claim 1, wherein the insulation system which, as regards it thermal and electrical properties, permits a voltage level in the machine exceeding 36 kV.

Claim 37 (Previously Presented): The mobile plant as claimed in claim 1, wherein the plant is mounted on wheels.

Claim 38 (Previously Presented): The mobile plant according to claim 1, wherein:

the mobile plant is configured to provide phase compensation at a plurality of localities of a high voltage power network.

Claim 39 (Previously Presented): A method for phase compensation in a high voltage power network using a mobile synchronous compensator plant including:

providing at least one rotating electric machine having at least one winding having a current carrying conductor with a plurality of strands, a portion of said strands being insulated strands, an insulation system including at a first semiconducting layer, a solid insulation layer surrounding the first semiconducting layer, and a second semiconducting layer surrounding the solid insulation layer, the first semiconducting layer and the second semiconducting layer being configured to provide respective essentially equipotential surfaces, and the mobile plant being configured to be transportable by at least one of a lorry, a railway truck, and a helicoptor, ~~comprising the steps of:~~

providing phase compensation at a first locality of the high voltage power network;

transporting the mobile plant from the first locality to a second locality of the high voltage power network; and

providing phase compensation at the second locality.

IN THE DRAWINGS

The attached sheet of drawings includes new Fig. 5.

Attachment: New Drawing